CAIT
Center for Advanced Infrastructure & Transportation
Rutgers, The State University of New Jersey

QUARTERLY PROGRESS REPORT

Project Title:	Implementation of Weigh-In-Motion (WIM) Systems
RFP NUMBER:	NJDOT RESEARCH PROJECT MANAGER: Nick Vitillo
TASK ORDER NUMBER/Study Number: 92 / 4-23941	PRINCIPAL INVESTIGATOR: Dr. Ali Maher
Study Start Date: 06/14/2000 Study End Date: 12/31/2003	Period Covered: 3rd Quarter 2003

Task	% of Total	% of Task this quarter	% of Task to date	% of Total Complete
Literature Search	10%	0%	100%	10%
1. Packaging	17%	5%	100%	17%
2. Testing	14%	5%	95%	13.3%
3. Site Determination	11%	20%	90%	9.9%
4. Field Implementation & Calibration	16%	5%	60%	9.6%
5. Monitoring and Analysis	22%	0%	0%	0%
Final Report	10%	0%	0%	0%
TOTAL	100%			59.8%

1. Progress this quarter by task:

A. The site selection was completed. A complete layout of the sensors, wires, weather tight box, conduits, placement, etc was determined.

B. Chairs for sensor placement were fabricated from the PU-200 roadway epoxy. This resolved the long standing issue of how the placement of the sensor in the field was to be "controlled".

C. Home Depot rents field wet saws equipped with a blade sufficient to cut the pavement. This resolved the long standing issue of where we were going to acquire a field wet saw.

D. A weather tight box was obtained to store the DAQ blocks in the field on the shoulder of the road (approx. 15 feet from the edge of the pavement). The box will be buried just below the grade and when fieldwork is conducted will be opened, thus allowing the DAQ system to quickly hook-up to the sensors.

E. Plastic conduit was selected to snake the wires thru from the edge of the pavement to the weather tight box. The conduit is non conductive and protects the wires in the transition from the epoxy thru the soil to the DAQ blocks.

F. Extra lengths of wires were soldered to the main sensor wires to increase the wire length. All connections were "clean" and then wrapped with electrical tape; and then jointly sealed within heat shrink tubing. All connections were tested for short circuits.

G. We coordinated with the State Police and also have opened discussions about comparing our data to the Truth Data that the State Police Collects.

H. The installation was started, and is now half complete. It is expected that if the weather is good, that the installation could be completed the first week of September.

2. Proposed activities for next quarter by task
   A. Complete installation and collect data
   B. Calibrate data with the weigh station.

3. List of deliverables provided in this quarter by task (product date)
   N/A

4. Progress on Implementation and Training Activities
   N/A

5. Problems/Proposed Solutions
   A. We needed to move our installation more into the weigh station to allow a better alignment. The new configuration allows the truck to straighten out prior to passing over the WIM.
   B. The DAQ system has started to show signs of failure, we have contact the manufacturer about our concerns. We may need to take the system to a repair shop or possibly switch to another DAQ system.

6. Budget Summary*

Total Project Budget(# of years)	2 Years	$194,500.00
Total Project Expenditure to date		$102,295
% of Total Project Budget Expended		53%
Task Order Number/Study Number:		92 / 4-23941
Current Task Order Budget (# of years)	Year 1 and 2	$194,500.00
Actual Expenditure to date against current task order		$102,295
% of current task order budget expended		53%

* These are approximate expended amounts for the project; these estimates are for reference only and should not be used for official accounting purposes. For a more accurate project accounting please review the quarterly invoice for this project.